IP Link® Device Interface Communication Sheet

This document provides additional assistance with wiring your Extron IP Link enabled product to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instructions, refer to the user's manual for the specific Extron IP Link enabled product or the controlled device manufacturer supplied documentation.

Device Specifications:

Device Type:	Display
Manufacturer:	Sharp
Firmware Version:	N/A
Model(s):	LC-60EQ10U, LC-60SQ10U, LC-60SQ15U, LC-60SQ17U, LC-60TQ15U, LC-60UQ17U, LC-70EQ10U, LC-70SQ10U, LC-70SQ15U, LC-70SQ17U, LC-70TQ15U, LC-70UQ17U, LC-80UQ17U

Version History:

Driver Version	Date	IP Link Compiler	GC Version	Notes
1	5/6/2014	1.6.0	3.5.2	Initial version.

Driver Notes:

- Driver includes volume optimization.
- Channels available based on tuner mode:
  - Analog Air (1-135, only major channel)
  - Digital Air (1-99 major channel, 0-99 minor channel)
  - Digital Cable 1 (1-999 major channel, 0-999 minor channel)
  - Digital Cable 2 (1-9999 major channel)
- To send the correct discrete channel number, do the following steps in this specific order:
  1. Select Tuner Mode
  2. Use Keypad to select channel number.
  3. Period (.) is used for selecting minor channel.
  4. Press Enter to send the command for the selected channel.

Control Commands & States:

3D Mode	Off	2D to 3D	SBS
	TAB	2D (TAB)	2D (SBS)
	3D Auto	2D Auto	
Aspect Ratio	Toggle	Side Bar	S. Stretch
	Zoom [AV]	Stretch [AV]	Normal (PC)
	Zoom [PC]	Stretch [PC]	Dot by Dot
	Full Screen	Auto	Original
Audio Mute	On	Off	Toggle
Audio Selector	Toggle		
Channel Number	1	2	3
	4	5	6
	7	8	9
	0	.	Enter
	Clear		
Channel TV (Step)	Up	Down	
Closed Caption	Toggle		
Input	TV	HDMI1	HDMI2
	HDMI3	HDMI4	Component
	Video 1	Video 2	PC
	Toggle		
Menu Navigation	Up	Down	Left
	Right	Enter	Menu
	Exit		
Power Control	On	Off	RS232 Enable
Tuner Mode	Analog Air	Digital Air	Digital Cable 1
	Digital Cable 2		
Volume (Discrete)	0 to 100 in steps of 1		
Volume (Step)	Up	Down	

Status Available:

3D Mode	Off	2D to 3D	SBS
	TAB	2D (TAB)	2D (SBS)
	3D Auto	2D Auto	
Aspect Ratio	Side Bar	S. Stretch	Zoom [AV]
	Stretch [AV]	Normal (PC)	Zoom [PC]
	Stretch [PC]	Dot by Dot	Full Screen
	Auto	Original	
Audio Mute	On	Off	
Connection Status	Connected	Disconnected	
Input	TV	HDMI1	HDMI2
	HDMI3	HDMI4	Component
	Video 1	Video 2	PC
Power Control	On	Off	
Volume (Discrete)	0 to 100 in steps of 1		

MLC60 Series Supported Commands:

3D Mode	Off	2D to 3D	SBS
	TAB	2D (TAB)	2D (SBS)
	3D Auto	2D Auto	
Aspect Ratio	Toggle	Side Bar	S. Stretch
	Zoom [AV]	Stretch [AV]	Normal (PC)
	Zoom [PC]	Stretch [PC]	Dot by Dot
	Full Screen	Auto	Original
Audio Mute	On	Off	Toggle
Audio Selector	Toggle		
Channel TV (Step)	Up	Down	
Closed Caption	Toggle		
Input	TV	HDMI1	HDMI2
	HDMI3	HDMI4	Component
	Video 1	Video 2	PC
	Toggle		
Menu Navigation	Up	Down	Left
	Right	Enter	Menu
	Exit		
Power Control	On	Off	RS232 Enable*
Volume (Discrete)	0 to 100 in steps of 1		
Volume (Step)	Up	Down	

*To keep RS232 port open during standby, the “RS232 Enable” needs to be configured on the “Power Off” button on MLC 60 Series.

Cable and Adapter Requirements:

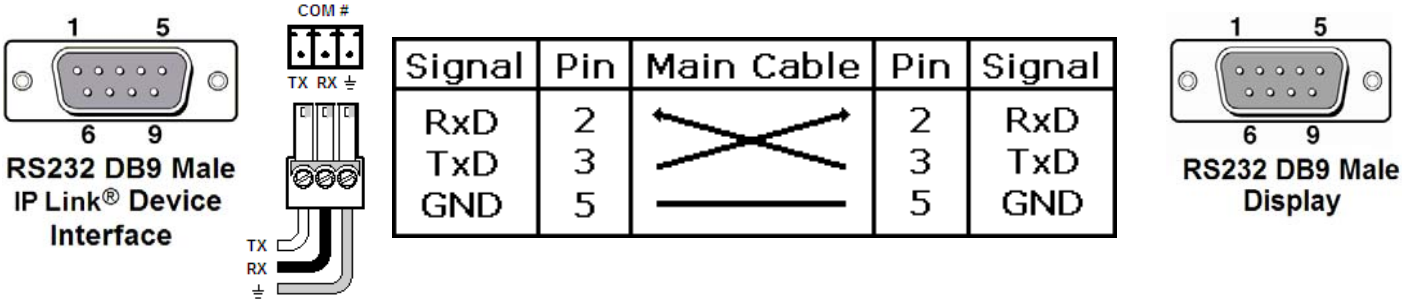
F/F RS232 DB9 Null Modem Serial Cable

Notes for the Device:

Serial communication:

Port Type:	RS-232	**Parity:**	None
Baud Rate:	9600	**Stop Bits:**	1
Data Bits:	8	**Flow Control:**	None

Pin Assignments Diagram:



Note: Captive screw connector may also be used as a serial connection.

General Notes: